

AR22

**1976
Annual Report**

**Tara Exploration
and Development
Company
Limited**

AR22

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Tara Exploration
and Development
Company
Limited

SEMI-ANNUAL REPORT
FOR THE PERIOD ENDED
JUNE 30, 1976

Tara Exploration and Development Company Limited

and its wholly owned subsidiary companies

Registered Office
P.O. Box 298, Toronto-Dominion Centre
Suite 2602, Royal Trust Tower
Toronto, Canada M5K 1K2

Executive Office
162 Clontarf Road
Dublin 3, Ireland

To the Shareholders:

The unaudited consolidated financial statements of the Company for the six months ended June 30, 1976 together with comparative figures for the same period in 1975 are attached.

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

(Unaudited)

For the Six Months Ended June 30, 1976

(With comparative figures at June 30, 1975)
(expressed in Canadian dollars)

	<u>1976</u>	<u>1975</u>
SOURCE OF WORKING CAPITAL:		
Bank and other loans	\$23,832,511	\$ 8,905,326
APPLICATION OF WORKING CAPITAL:		
Surface rights, buildings, equipment and construction in progress	15,211,041	4,405,180
Exploration, development and administrative expenditures (net)	7,320,179	3,805,322
Stores inventory	585,182	—
	<u>\$23,116,402</u>	<u>\$ 8,210,502</u>
Increase in working capital position	716,109	694,824
Working capital deficiency at beginning of period	8,701,187	1,343,547
Working capital deficiency at end of period	<u>\$ 7,985,078</u>	<u>\$ 648,723</u>

CONSOLIDATED STATEMENT OF EXPLORATION, DEVELOPMENT AND ADMINISTRATIVE EXPENDITURES DEFERRED

(Unaudited)

For the Six Months Ended June 30, 1976

(With comparative figures at June 30, 1975)
(expressed in Canadian dollars)

	<u>1976</u>	<u>1975</u>
Mine exploration, development and administration	\$ 6,336,166	\$ 1,250,836
General exploration	226,067	221,863
Administrative and general ex- penses	396,999	649,436
Interest	3,179,920	1,204,140
Adjustment on currency con- version	—	639,194
	<u>10,139,152</u>	<u>3,965,469</u>
Deduct interest and other in- come less taxes	45,242	160,147
Adjustment on currency con- version	2,773,731	—
	<u>2,818,973</u>	<u>160,147</u>
DEFERRED EXPENDITURES (net) for the period	<u><u>\$ 7,320,179</u></u>	<u><u>\$ 3,805,322</u></u>

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GENERAL CORPORATE

BOARD OF DIRECTORS

SYLVESTER P. BOLAND,

Dublin, Ireland

*Vice President of Finance and Director,
Northgate Exploration Limited*

F. E. BURNET,

Vancouver, Canada

*Chairman and Chief Executive Officer,
Cominco Ltd.*

CHARLES CARVILL,

Newry, Northern Ireland

Business Executive

F. DOUGLAS GIBSON,

Toronto, Canada

*Partner, Law Firm of Fasken & Calvin,
Toronto, Canada*

MATTHEW GILROY,

Dublin, Ireland

*Vice President and Director,
Northgate Exploration Limited*

JAMES HANRATTY,

Newry, Northern Ireland

Business Executive

MURRAY B. HOFMEYR,

London, England

*Chairman and Managing Director
Charter Consolidated Limited*

PATRICK J. HUGHES,

Dublin, Ireland

*President and Director,
Northgate Exploration Limited*

BRENDAN J. HYNES,

Dublin, Ireland

*Deputy Chairman
and Chief Executive Officer,
Tara Mines Limited*

MICHAEL McCARTHY,

Ballinasloe, Ireland

Chairman, Tara Mines Limited

JOSEPH V. McPARLAND,

Dundalk, Ireland

Director, Tara Mines Limited

HUGH MURPHY,

Leicester, England

*Joint Managing Director,
Murphy Securities Limited*

PATRICK J. MURPHY,

Leicester, England

*Joint Managing Director,
Murphy Securities Limited*

MURROGH V. OBRIEN,

Dublin, Ireland

Director, Tara Mines Limited

ALFRED POWIS,

Toronto, Canada

*President and Chief Executive Officer,
Noranda Mines Limited*

JOHN J. TULLY,

Meath, Ireland

Secretary and Director, Tara Mines Limited

INFORMATION

OFFICERS

MICHAEL McCARTHY,
President
MURROGH V. OBRIEN,
Executive Vice President and General Manager
MATTHEW GILROY,
Vice President
BRENDAN J. HYNES,
Vice President
PETER McALEER,
Vice President
JOSEPH V. McPARLAND,
Secretary-Treasurer

AUDITORS

Thorne Riddell & Co., Chartered Accountants,
Toronto, Canada

Griffin, Lynch & Co., Chartered Accountants,
Dublin, Ireland

SOLICITORS

Fasken & Calvin, Toronto, Canada

McCann, FitzGerald, Roche & Dudley,
Dublin, Ireland

REGISTRAR AND TRANSFER AGENT

Crown Trust Company,
Toronto, Canada

Charter Consolidated Limited,
Ashford, Kent, England

EXECUTIVE OFFICE

162 Clontarf Road,
Dublin, Ireland
Telephone 332211
Telex 500-5881

REGISTERED OFFICE

Suite 2602, Royal Trust Tower,
P.O. Box 298, Toronto-Dominion Centre,
Toronto, Canada M5K 1K2
Telephone (Area Code 416) 362-2781
Telex 06-217766

ANNUAL AND GENERAL MEETING OF SHAREHOLDERS

June 24, 1977, 10:00 a.m.
Territories Room
Royal York Hotel
Toronto, Canada

TARA

EXPLORATION
AND
DEVELOPMENT
COMPANY LIMITED

TWENTY-THIRD
ANNUAL REPORT
1976





Aerial view looking north across the Navan Mine concentrator complex. Foreground, from left to right, are shops, warehouse and mine changehouse. Left of centre are the coarse ore storage building, reclaim and conveyor system. Centre right is main concentrator building with concentrate loadout facility to the rear. Upper right are drainage ponds for water reclaim.

Report to the Shareholders

The drill discovery near Navan, County Meath, Republic of Ireland, in November of 1970, later identified as one of the larger zinc-lead deposits of the world, is now at the threshold of commercial production. Tune-up operation of the concentrator is now in progress and initial output of concentrates will begin within the next two weeks. The Navan project of Tara Mines Limited is impressive in all its facets.

This brings to initial fruition, the exploration efforts of your Company in Ireland, which commenced in 1962, expanded in scope in 1967, and achieved first success some six and a half years ago.

The presently known ore limits as defined by surface drilling at Tara's zinc-lead deposit, extend in a general northeast-southwest direction for a distance of approximately 750 meters, and varying in width from 275 to 325 meters, and in thickness, up to 120 meters.

Ore reserves south of the River Blackwater, including the well established and indicated categories, together with potential ore defined by more widely spaced drilling, total about 67,342,000 short tons of an undiluted average grade of 11.0% zinc and 2.4% lead. This equates to approximately 61 million metric tons of similar grade.

The concentrator at its design rate is capable of treating some 7,000 metric tons of ore daily for an average annual production of 400,000 metric tons of zinc concentrate and 70,000 metric tons of lead concentrate. The expected metal content of the zinc concentrates produced annually will be approximately 220,000 metric tons of zinc; and for the lead concentrate, about 42,000 metric tons of lead.

To put these production statistics into perspective, the zinc output of the Navan Mine, measured at the design rate of 220,000 metric tons annually, will be equal to approximately 25% of the estimated total 1976 European zinc mine production of 833,000 metric tons and approximately 14% of estimated 1976 European zinc consumption of 1,542,000 metric tons.

Lead production will be equal to approximately 10% of the estimated total 1976 European lead mine production of 450,000 metric tons and approximately 3% of European lead consumption of 1,389,000 metric tons.

This production, in close proximity to European markets, will obviously help offset the amount by which European mine production of both zinc and lead historically falls short of consumption.

It is anticipated that during the initial year of production the mill will operate

at approximately 50% design rate, and thereafter increasing to capacity in late 1978.

Zinc and lead concentrates will be shipped to nine European smelting firms under sales contracts which provide for a diversion of zinc concentrate to an Irish refinery when such a facility is established.

Navan Mine Project

The buildings of the concentrator complex are of steel frame structure and cladding is colour protected metal. The design also incorporates insulated wall construction where necessary for noise abatement.

The general layout, colour and shape of the buildings are in conformity with Tara's long range environ-



Looking northwest at the main concentrator building with zinc thickener in foreground. Paved roads provide access to all buildings.

mental planning. The concentrator complex has been designed to ensure high standards of performance and compatibility with the local urban community lying in the rich Meath agricultural setting.

When the landscape program has been completed, the mine site will be

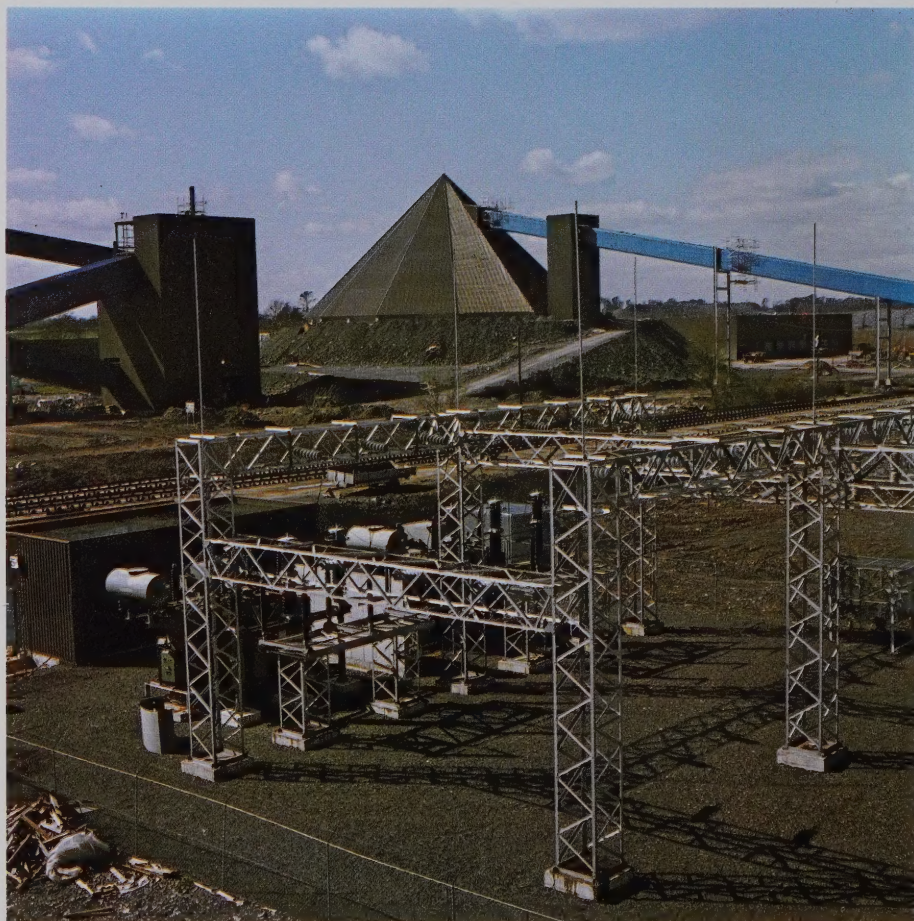
visually attractive and the development will merge harmoniously with the nearby town and countryside. The surface plant will be located on the 420 acre tract owned by the Company, occupying about 25% of the total area with the remainder devoted to planting, farming areas and open space. The direct capital costs of the conservation plan is approximately \$9 million.

Construction and Mine Development

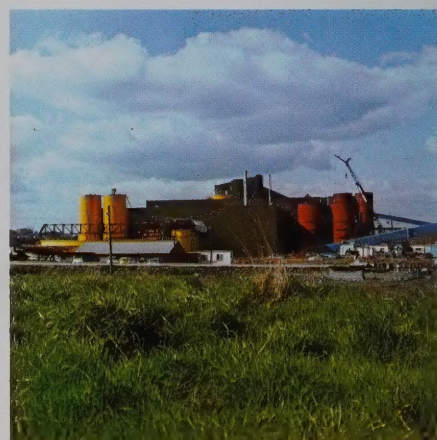
Construction of the mine site surface and ore treatment facilities essential to production start-up have been completed and are operative. All other works, including some mine site and off-site service facilities are nearing completion, including the concentrate storage and ship-loading facility at Dublin Port.

Mine development and underground work is essentially on schedule and ore handling systems are in operation. Installation of the underground crusher and conveying systems has been completed and crushed ore is now being hoisted to the surface coarse ore stockpile.

The appended illustration of the underground workings of the Navan Mine shows the advance completed to



The electrical sub-station in foreground. Total connected electrical power load for the mine and concentrator is estimated at 27,400 kilowatts.



General view of the concentrator complex at the Navan Mine during the final stages of construction.

March 31, 1977. This represents the required development for production.

Total stockpile of ore on surface was in excess of 572,000 metric tons at the end of April 1977. Grade of this ore, most of which represents development advance, is approximately 11.8% combined zinc and lead.

In addition to the ore obtained directly from underground, additional ore will be fed from the surface stockpile into a feeder on the conveyor which runs from the production shaft to the coarse ore storage building.

At the present time, 152 trained miners and construction crew, 46 trainees and 45 contract miners are employed. Recruitment of mill operators has been completed and training of the mill crew is continuing. Essential technical and supervisory positions have been filled.



Landscaping is an integral part of the \$9 million environmental programme at the Navan Mine project.

At the peak of the construction period, the workforce, including contractors' and Tara personnel, totalled some 1,600 persons. At the present time, Tara's personnel employed at the mine totals about 650 and when in full production will increase to over 800 persons.

Most site photographs appearing in

this Report were taken during the month of April, 1977.

Project Financing

Financing for the constructing of the Navan project, as described in the 1975 Annual Report, involved bank consortium loans totalling U.S.\$100 million and a buyer credit loan from the Canadian Federal Government's



Signing of the senior financing arrangements for the \$150 million Navan Mine project on May 26, 1976. In attendance were representatives of the bank consortium, Irish government agencies, and chaired by Mr. Michael McCarthy, President of the Company and Mr. Brendan J. Hynes, Deputy Chairman and Chief Executive Officer of Tara Mines Limited.

Export Development Corporation amounting to U.S.\$30 million, with the remainder consisting of equity financing and subordinated loans previously provided by the parent corporation.

The project will be completed within the \$150 million construction financing arranged. This is particularly pleasing

in light of the rate of inflation during the construction period and the experience of other mine development projects in recent years.

The equity of subsidiary Tara Mines Limited, is owned as to 75% by your Company, and, in accordance with one of the terms of the State Mining Lease, under which Tara mines the

Navan deposit, the remaining 25% of the equity is held by the Irish Government's Minister for Industry and Commerce. The State Mining Lease has a term of 25 years, subject to renewal on terms then agreed.

Mining companies in Ireland are subject to the normal income tax provisions applicable to general industry.



View of the enclosed ore conveyor system with fine ore storage bins at lower right. Ore is reclaimed from coarse ore storage building and conveyed to crushing and screening plant located inside main building. The crushed ore passes to fine ore bins into the mill for treatment.

Any royalties payable are tax deductible expenses, as are continuing capital expenditures, depreciation and interest on debt.

Zinc Refinery

The Company is proceeding with studies on the optimum method of constructing, operating and financing a

zinc refinery in Ireland. These studies by the Company are a continuation of earlier work and it is hoped that the studies involving the Irish Government's Industrial Development Authority and Gulf and Western's New Jersey Zinc Company will have reached the stage that decisions can be made on the zinc refinery project by late

summer.
In addition to Irish university research on environmental matters connected with mining, the Company is also sponsoring similar research on industrial applications for zinc metal. Because of the skills and experience which the Company has developed over the past five years, Tara has been
(Continued on Page 11)



Looking northwest showing the conveyors to the coarse ore storage building and ore transfer house. Ore hoisted to surface via the production shaft is transported through a totally enclosed conveyor system and the final concentrate product similarly conveyed through enclosed facilities to the concentrator loadout for ultimate shipment to Dublin Port.



View of the production shaft headframe during construction. The underground crushing facilities are located deep in the mine workings from which the pre-crushed ore product is initially transported to an underground coarse ore bin and loading pocket and then hoisted to surface through this production shaft which is approximately 5 meters in diameter.

(Continued from Page 9)

asked, and is currently carrying out a study of European mines for the E.E.C.

Economic Factors

With the zinc and lead metal production in the approximate ratio of 5:1 and the proportionate contribution to revenue of about 85% for zinc and 15% for lead, considerations relating to zinc prices and markets are important to the economics of Navan Mine operations.

As we mentioned in the 1975 Annual Report, the imbalance between zinc supply and consumption has seen a pronounced build up in world inventories of this metal.

In 1976, although zinc consumption was above the depressed levels of the previous year, due in part to some rebuilding of consumer stocks as well as from the improvement in auto production, there was only a modest reduction of inventories.

Since early 1976 the European consumption of zinc has been averaging about 70% of capacity.

At year end inventories were still approximately twice normal level and until these were reduced it was expected that this supply-demand imbalance would impact on the potential for short price improvement.

Reflecting this, during May, 1977 the European Producer price for zinc, which had remained stable for over

two years, was reduced from \$795 per metric ton (36.1¢ per lb.) to \$700 per metric ton (31.8¢ per lb.).

The situation with respect to lead is in sharp contrast. With a close balance between consumption and supply and, in fact, a probable technical world shortage, the strong uptrend in lead prices which developed in 1976 has continued with current London Metal Exchange quotations equal to about 30.5¢ per lb.

General Exploration

During 1976, your Company, through its wholly owned subsidiary, Tara Prospecting Limited, actively continued mineral exploration on its Republic of Ireland licences. The number of licences held was again reduced and the tempo of activity on remaining licences increased in a concentrated effort to delineate targets suitable for diamond drill testing.

Exploration during the period included a considerable footage of diamond drilling and although no significant new mineral occurrences were located during the year, a number of areas show geological factors which warrant further investigation.

As part of its reconnaissance exploration, Tara Prospecting Limited will undertake a search for uranium in association with Irish Base Metals Limited, a wholly owned subsidiary of Northgate Exploration Limited. This

aspect of the programme is partly funded by a grant of £44,000 (approximately \$79,000) from the Directorate General for Energy of the European Economic Community (EEC).

In addition to the foregoing exploration undertakings of Tara Prospecting Limited, intense exploration is continuing in connection with the licences covering a combined area of 29 square miles in close proximity to the Navan Mine area by Tara Mines Limited.

The current rate of expenditure by these two subsidiary companies is in the order of approximately \$750,000 annually.





ISOMETRIC ILLUSTRATION OF UNDERGROUND WORKINGS
 Navan Mine, County Meath, Ireland

The isometric illustration alongside shows the intricate system of the underground workings of the Navan Mine which is serviced by two shafts extending to a vertical depth of about 360 meters and the twinned declines. Access to the mine for miners, materials and services is by the development shaft and the decline roadway driven at a slope of 20%.

Investments

Northgate Exploration Limited, in which your Company holds an approximate 7.3% interest, reported a consolidated net loss for 1976 of \$598,000 equal to 9¢ per share as compared with a net income (restated) for 1975 of \$1,495,000 or 22¢ per share.

Net revenue from the sale of metal and metal concentrates, which in 1976

was derived solely from the Tynagh Mine, amounted to \$11,683,000. This compares with net revenue for 1975 of \$20,418,000 from the combined operations of the Tynagh Mine and the Gortdrum Mine.

The foregoing results for 1976 mainly reflect the termination of operations at the Gortdrum Mine during the latter half of 1975.

Other contributing factors to the net loss incurred in 1976 were the substantial increase in exploration expenditures from \$1,034,000 in 1975 to \$1,502,000 in 1976, and an increase in the company's share of losses incurred by associated companies from \$279,000 in 1975 to \$885,000 in 1976.

(Continued on Page 16)



A view of part of the vast network of tunnels underground at the Navan Mine. As depicted in the isometric illustration alongside, the extensive underground workings represent some 18,500 meters of total advance in tunnels providing access to the deposit where, in full operation, the mine will provide about 9,000 metric tons per day of ore for treatment in the concentrator.



Conceptual illustration of concentrator complex
Navan mine, County Meath, Ireland



Production shaft

Development shaft

Portal

Mine drainage ponds

Electrical sub-station

Sewage treatment plant

Pond

Storage tanks

Concentrator loadout

Pump house

Pump house

Administration building

plex at

Parking

(Continued from Page 13)

These adverse factors affecting Northgate's net income in 1976 were partly offset by a substantial increase in investment income from \$1,594,000 in 1975 to \$2,391,000 in 1976. The company reported an increase in working capital during the year of \$8,709,000 for a total at year end of \$26,794,000.

Northgate has been in the forefront among the companies actively exploring in Ireland, with its 1976 exploration expenditure being in excess of \$1 million and a budget for 1977 of \$1.5 million.

On a cumulative basis following the commencement of production at the

Tynagh Mine, Northgate and its wholly owned subsidiary companies have, to the end of 1976, expended more than \$5 million in exploration throughout Ireland.

Financial Accounting

During 1976, the Company changed its unit of reporting for the year ended December 31, 1976 from Canadian dollars to United States dollars. The comparative 1975 figures have also been restated in United States dollars.

This change in financial reporting recognizes that the Company's bank and buyer credit loans are denominated



The coarse ore storage building viewed from the west. After pre-crushing of ore in the underground crushers, the ore is hoisted to surface through the production shaft and transported through an enclosed conveyor to the coarse ore storage building where it will subsequently be reclaimed and conveyed to the main concentrator building.



A view from inside of the main concentrator building where the various processes in the treatment of ore take place to produce the zinc and lead concentrates.

ted in U.S. dollars and that its smelter settlements from the sale of zinc concentrates will be priced in U.S. funds.

All currency figures used in this Report in connection with the Company and its subsidiary, Tara Mines Limited, are expressed in U.S. dollars.

Organization

At the last Annual and General Meeting, Mr. F. E. Burnet, Chairman and Chief Executive Officer, Cominco Ltd., Vancouver, Canada; Mr. J. N. Clarke, Executive Director, Charter Consolidated Limited, London, England; Mr. F. D. Gibson, Partner, Law Firm of Fasken and Calvin, Toronto, Canada, and Mr. A. Powis, President and Chief Executive Officer, Noranda Mines Limited, Toronto, Canada, were elected Directors of the Company.

During 1976, Mr. Clarke was succeeded by Mr. M. B. Hofmeyr, Chairman and Managing Director, Charter Consolidated Limited, London, England.

Also during the year, Mr. A. A. Packenham-Walsh, Professor, Trinity College, Dublin, Ireland; Mr. D. S. Flynn, retired Civil Servant, Dublin, Ireland and Mr. N. B. Dhonau, Geological Survey of Ireland, Dublin, Ireland were elected to the Board of Directors of Tara Mines Limited as nominees for the Irish Government's Minister for Industry and Commerce.

The Directors express their appreciation to all employees who have contributed in substantial measure to the development and exploration undertakings of the Company and its subsidiaries, as well as to our consultants, contractors and corporate associates and others who have collectively brought to your Company a wide range of specialized skills and capa-

bilities in connection with the planning, construction and development at the Navan Mine.

On behalf of the Board of Directors,

"Michael McCarthy"
President

June 2, 1977



Looking northwest from the concentrator building with the fine ore bins in the foreground to the left and the coarse ore storage building at the extreme right background. At design rate, the concentrator will produce approximately 400,000 metric tons of zinc concentrate and 70,000 metric tons of lead concentrate annually.

TARA / EXPLORATION AND DEVELOPMENT COMPANY LIMITED

(Incorporated under the laws of Ontario)
and its subsidiary companies

CONSOLIDATED BALANCE SHEET

December 31, 1976

Expressed in U.S. dollars

Assets	1976	1975
Current Assets		
Cash, including term deposits	\$ 320,163	\$ 1,095,310
Accounts receivable	1,608,728	670,449
	<u>1,928,891</u>	<u>1,765,759</u>
Investments, at cost		
Northgate Exploration Limited (note 3)	4,297,730	4,297,730
Other companies (note 4)	352,145	351,452
	<u>4,649,875</u>	<u>4,649,182</u>
Fixed Assets, at cost		
Surface rights, buildings, equipment and construction in progress	68,066,641	33,605,667
Other Assets and Deferred Charges (note 5)	57,148,914	32,598,649
	<u>125,215,555</u>	<u>66,204,316</u>
	<u>\$ 131,794,321</u>	<u>\$ 72,619,257</u>
Liabilities		
Current Liabilities		
Accounts payable and accrued liabilities	\$ 12,594,635	\$ 10,003,734
Income taxes payable	208,512	125,448
	<u>12,803,147</u>	<u>10,129,182</u>
Deferred Income Taxes	1,070,493	168,809
Long Term Debt (note 6)	90,290,891	34,435,803
Minority Interest	<u>2,392,499</u>	<u>2,392,499</u>
Shareholders' Equity		
Capital Stock (note 7)		
Authorized —7,000,000 shares of Cdn. \$1 each		
Issued —6,457,360 shares	6,223,242	6,223,242
Contributed Surplus	19,032,109	19,032,109
	<u>25,255,351</u>	<u>25,255,351</u>
Retained Earnings (Deficit)	(18,060)	237,613
	<u>25,237,291</u>	<u>25,492,964</u>
	<u>\$ 131,794,321</u>	<u>\$ 72,619,257</u>
Capital commitments (note 8)		

Approved by the Board

MICHAEL McCARTHY, Director

JOSEPH V. McPARLAND, Director

Auditors' Report

To the Shareholders of
Tara Exploration and Development Company Limited

We have examined the consolidated balance sheet of Tara Exploration and Development Company Limited as at December 31, 1976 and the consolidated statements of exploration, development and administrative expenditures, deferred, retained earnings (deficit) and changes in financial position for the year then ended. Our examination of Tara Exploration and Development Company Limited (the parent company) was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances. With respect to the subsidiary companies, of which we are not the auditors, we have carried out such enquiries and examinations as we considered necessary in order to rely on the reports of their auditors for purposes of consolidation.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1976 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada
April 29, 1977

Thorne Riddell & Co.
Chartered Accountants

CONSOLIDATED STATEMENT OF EXPLORATION, DEVELOPMENT AND ADMINISTRATIVE EXPENDITURES DEFERRED

Year Ended December 31, 1976

Expressed in U.S. dollars

	1976	1975
Mine exploration, development and administration	\$ 15,502,839	\$ 4,703,286
General exploration	410,951	412,562
Administrative and general expenses	1,533,903	862,369
Interest	5,823,292	2,297,805
Adjustment on currency conversion		575,606
	<u>23,270,985</u>	<u>8,851,628</u>
Deduct		
Dividends, interest and other income	339,996	257,526
Adjustment on currency conversion	137,176	
	<u>477,172</u>	<u>257,526</u>
Expenditures (net) before income taxes	22,793,813	8,594,102
Income taxes	1,068,446	227,894
Expenditures (net) for the year	<u>23,862,259</u>	<u>8,821,996</u>
Balance deferred at beginning of year	<u>25,922,553</u>	<u>17,100,557</u>
Deduct		
Write-off of deferred expenditures applicable to prospecting licences surrendered	255,673	
	<u>25,666,880</u>	<u>17,100,557</u>
Balance deferred at end of year	<u>\$ 49,529,139</u>	<u>\$ 25,922,553</u>

CONSOLIDATED STATEMENT OF RETAINED EARNINGS (DEFICIT)

Year Ended December 31, 1976

Expressed in U.S. dollars

	1976	1975
Retained earnings at beginning of year	<u>\$ 237,613</u>	<u>\$ 237,613</u>
Deduct		
Write-off of deferred expenditures applicable to prospecting licences surrendered	255,673	
Retained earnings (deficit) at end of year	<u>\$ (18,060)</u>	<u>\$ 237,613</u>

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

Year Ended December 31, 1976

Expressed in U.S. dollars

	1976	1975
Source of working capital		
Bank and other loans	\$ 55,855,088	\$ 18,100,629
Deferred income taxes	901,684	168,809
Minority interest		2,392,499
	<u>56,756,772</u>	<u>20,661,937</u>
Application of working capital		
Surface rights, buildings, equipment and construction in progress	34,460,974	12,165,542
Exploration, development and administrative expenditures (net)	23,862,259	8,821,996
Stores inventory	943,679	607,045
Lease acquisition		6,069,051
Investments		
Advances to other companies	693	806
	<u>59,267,605</u>	<u>27,664,440</u>
Decrease in working capital position	2,510,833	7,002,503
Working capital deficiency at beginning of year	8,363,423	1,360,920
Working capital deficiency at end of year	\$ 10,874,256	\$ 8,363,423

TARA / *EXPLORATION AND DEVELOPMENT COMPANY LIMITED*

and its subsidiary companies

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 1976

Expressed in U.S. dollars

1. Summary of Significant Accounting Policies

(a) Principles of consolidation

The consolidated financial statements include the financial statements of all subsidiary companies, the more significant of which are Tara Mines Limited and Tara Prospecting Limited.

(b) Currency conversion

The company's policies with respect to the translation of currency balances other than those in United States dollars are as follows:

(i) current assets, non-current advances and liabilities other than minority interest at year end rates.

(ii) all other assets and minority interest at historical rates.

Gains or losses resulting from translation of foreign currencies are included in other assets and deferred charges.

(c) Exploration, development and administrative expenditures deferred

The company and consolidated subsidiaries are deferring all expenditures which relate to future productive operations with the intention of amortizing such costs against future revenues expected to be derived from such operations.

(d) Depreciation

No provision for depreciation of fixed assets has been made from the dates of acquisition to December 31, 1976.

2. Unit of Reporting

During 1976, the company changed its unit of reporting for the year ended December 31, 1976 from Canadian dollars to United States dollars. The comparative figures have been restated in United States dollars. The balance of retained earnings at the beginning of 1975 has been adjusted as follows to reflect the cumulative effect of this change:

Balance of retained earnings at January 1, 1975

As previously reported, expressed in Cdn. dollars	\$264,910
Adjustment to reflect restatement in U.S. dollars	(27,297)
As restated, expressed in U.S. dollars	<u>\$237,613</u>

3. Investment in Northgate Exploration Limited

The quoted market value of 501,714 shares in Northgate Exploration Limited was \$2,430,000 at December 31, 1976 (December 31, 1975 — \$1,549,700). However, because of the number of shares owned, the quoted market value is not necessarily indicative of their realizable value.

4. Investments in Other Companies

	1976	1975
2,040,000 Shares in Smelter Corporation of Ireland Limited (30% interest) .	\$ 122,185	\$ 122,185
250,000 Shares in Avoca Mines Canada Limited	142,125	142,125
	264,310	264,310
Advances to Smelter Corporation of Ireland Limited	87,835	87,142
	<u>\$ 352,145</u>	<u>\$ 351,452</u>

The quoted market value of 250,000 shares in Avoca Mines Canada Limited, which operates a copper mine in Ireland, amounted to \$29,700 at December 31, 1976 (December 31, 1975 — \$29,400). Smelter Corporation of Ireland Limited is 70% owned by Northgate Exploration Limited and 30% owned by Tara Exploration. Smelter Corporation is a private company with no quoted market value for its shares.

5. Other Assets and Deferred Charges

	1976	1975
Exploration, development and administrative expenditures deferred	\$49,529,139	\$25,922,553
Lease acquisition	6,069,051	6,069,051
Construction and other stores at cost	1,550,724	607,045
	<u>\$57,148,914</u>	<u>\$32,598,649</u>

6. Long Term Debt

	1976	1975
Bank loans (note 6(a))	\$71,779,453	\$30,683,509
Vendor credit (note 6(a))	14,432,000	
Other loans (Can. \$4,127,432) (note 6(b))	4,079,438	3,752,294
	<u>\$90,290,891</u>	<u>\$34,435,803</u>

(a) Bank loans and vendor credit

- (i) The bank loans of \$71,779,453 to Tara Mines Limited at December 31, 1976 represent borrowings from a consortium of banks lead by The Toronto-Dominion Bank under a Bank Loan Agreement dated May 13, 1976 which entitles Tara Mines Limited to borrow up to \$100,000,000 (subject to possible increase to \$120,000,000) prior to April 1, 1978 with interest at 1½% above (and after April 1, 1978 at 2% above) the London interbank rate for Euro-dollar loans and with a commitment fee of 0.5% per annum on the unused portion of the loan.
- (ii) Vendor credit borrowings of \$14,432,000 by Tara Mines Limited at December 31, 1976 represent borrowings from the Canadian Federal Government's Export Development Corporation (E.D.C.) under a loan agreement dated May 13, 1976 which entitles Tara Mines Limited to borrow up to \$30,000,000. The initial advance of \$7,500,000 under this agreement bears interest until July 20, 1977 at the rate of 11½% (eleven and one-half percent) per annum and thereafter and on subsequent drawdowns at the rate of 9¼% (nine and three quarters percent) per annum. A commitment fee of 0.5% per annum is payable to the E.D.C. on the unused portion of the loan.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Long Term Debt (continued)

(iii) A standby facility of \$15,000,000 has been arranged by Tara Mines Limited with the Bank of Nova Scotia in the event of cost overruns. The commitment fee payable to the lender with respect to the standby facility is 0.5% per annum.

(iv) Security for the bank, vendor credit and standby loans is as follows:

- (a) A first and fixed specific charge on certain property and assets of Tara Mines Limited and a floating charge on its undertaking and its remaining property and assets.
- (b) An unconditional guarantee of the company for the full amount of all loans and the pledge by the company of all its shares in Tara Mines Limited.
- (c) Repayment of the amounts drawn down under the standby facility of \$15,000,000 has been guaranteed severally and not jointly by Charter Consolidated Limited as to 28%, Cominco Limited as to 28%, Noranda Mines Limited as to 28% and Northgate Exploration Limited as to 16%.

Tara Mines Limited has agreed to pay to the guarantors a commitment fee of 1% per annum in respect of this guarantee. An additional commitment fee would be payable on the portion, if any, drawn down under the standby facility.

(v) Repayment of the loans

- (a) The bank consortium loan is to be repaid in sixteen principal payments, the first such payment to be made on July 20, 1978 and the last on April 20, 1982 when the loan matures, subject to prior or advance payments.
- (b) The E.D.C. loan is to be repaid by thirty-two fixed principal payments, the first such payment to be made on July 20, 1978 and the last on April 20, 1986 when the E.D.C. loan matures, subject to prior or advance payments.

(vi) Among other covenants, the loan agreements contain certain restrictions relating to working capital and the payment of dividends by Tara Mines Limited.

(b) Other loans

This loan repayable by Tara Mines Limited in Canadian dollars to the Minister for Industry and Commerce of Ireland is evidenced and secured by promissory notes and is subordinate to all financing arrangements entered into for the development of the Navan Mine and carries interest calculated on the same basis as the interest on the senior financing loans. Both principal and interest on the loan are payable in six semi-annual instalments to the lender following the repayment of the senior financing by Tara Mines Limited.

7. Capital Stock

(a) Warrants

During 1974, the company with the assistance of Noranda Mines Limited arranged a \$6,000,000 bank line of credit. In consideration for Noranda's assistance in arranging this line of credit, the company issued to Noranda five-year warrants to subscribe for 100,000 shares of the company's capital stock at Cdn. \$16.00 per share.

(b) Employees' stock options

Pursuant to the employees' stock option plan, options may be granted on up to 250,000 shares of the company's capital stock at prices not less than 90% of the market value of the shares on the dates the options are granted.

At December 31, 1976 options were outstanding as follows:

<u>No. of shares</u>	<u>Price per share</u>	<u>Exercisable</u>
2,000	Cdn. \$16.43	May 1, 1972 to April 30, 1977
20,000	Cdn. \$22.95	May 1, 1974 to April 30, 1979

No employees' stock options were exercised during the year.

8. Capital Commitments

The company's subsidiary, Tara Mines Limited, is committed to capital expenditures in the amount of \$8,312,400.

9. Other Statutory Information

Direct remuneration of the company's directors and senior officers (as defined by The Business Corporations Act, Ontario) amounts to \$263,884 for the year ended December 31, 1976 (1975 — \$118,274).



The concentrator complex at the Navan Mine viewed looking to the northwest with the 29 meter diameter zinc thickener in the foreground. The entire concentrator complex has been designed to ensure high standards of performance and compatibility with the surrounding countryside. The Navan Mine will be foremost among all European zinc-lead mines and top-ranking among the largest of such mines in the world.

TARA MINES LIMITED

DIRECTORS

N. B. DHONAU

Dublin, Ireland
Geological Survey of Ireland

D. S. FLYNN

Dublin, Ireland
Retired Civil Servant

MATTHEW GILROY

Dublin, Ireland
*Vice President and Director,
Northgate Exploration Limited*

BRENDAN J. HYNES

Dublin, Ireland
*Vice President and Director,
Tara Exploration and Development
Company Limited*

WILLIAM JAMES

Toronto, Canada
*Executive Vice President,
Noranda Mines Limited*

MICHAEL McCARTHY

Bállinasloe, Ireland
*President and Director,
Tara Exploration and Development
Company Limited*

JOSEPH V. McPARLAND

Dundalk, Ireland
*Secretary / Treasurer and Director,
Tara Exploration and Development
Company Limited*

HUGH MURPHY

Leicester, England
*Joint Managing Director,
Murphy Securities Limited*

PATRICK J. MURPHY

Leicester, England
*Joint Managing Director,
Murphy Securities Limited*

MURROGH V. OBRIEN

Dublin, Ireland
*Executive Vice President
and General Manager,
Tara Exploration and Development
Company Limited*

A. A. PACKENHAM-WALSH

Dublin, Ireland
Professor, Trinity College

JOHN J. TULLY

Meath, Ireland
*Director, Tara Exploration
and Development Company Limited*

ALTERNATE DIRECTORS

SYDNEY FILER

Dartmouth, England
*Managing Director, Smelter Corporation
of Ireland Limited*

JOHN A. HALL

Toronto, Canada
*Vice President Mine Projects,
Noranda Mines Limited*

PATRICK J. HUGHES

Dublin, Ireland
*President and Director,
Northgate Exploration Limited*

PETER McALEER

Dublin, Ireland
*Vice President,
Northgate Exploration Limited*

OFFICERS

MICHAEL McCARTHY,

Chairman

BRENDAN J. HYNES,

Deputy Chairman and Chief Executive Officer

JOHN J. TULLY

Secretary

GORDON H. MONTGOMERY

*Vice President and
General Manager — Operations*

FRANK A. DONNELLAN

Financial Controller

HEAD OFFICE

162 Clontarf Road,
Dublin, Ireland
*Telephone 332211
Telex 5881*

MINE OFFICE

Kells Road, Navan,
County Meath, Ireland
*Telephone 21927
Telex 4568*

TARA PROSPECTING LIMITED

MICHAEL McCARTHY,

Director

MURROGH V. OBRIEN,

Director

DEREK M. ROMER,

General Manager

JOHN J. TULLY,

Secretary

MINING IN IRELAND

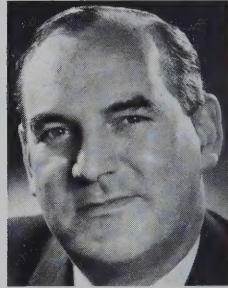
Among those who made important contributions to the revival of mining interest in Ireland were Patrick J. Hughes, Matthew Gilroy, Michael McCarthy, Joseph McParland and their associates who were identified with three mining companies, Northgate Exploration Limited, Gortdrum Mines Limited, and Tara Exploration and Development Company Limited.

The 1961 discovery near Tynagh, County Galway, of the lead-zinc-copper-silver deposit by Northgate's Irish subsidiary, Irish Base Metals Limited, started a chain of events which has resulted in the development and expansion of the mining industry in Ireland to its current significant level of production.

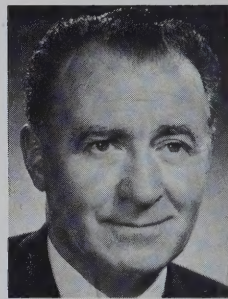
The Tynagh discovery was closely followed by the copper-silver discovery in County Tipperary in 1964 and was subsequently developed by Gortdrum Mines (Ireland) Limited.

The third discovery by the company group came in late 1970 near the town of Navan, County Meath, which on subsequent extensive surface drilling unfolded as a very substantial zinc-lead deposit, ranking among the largest of its kind throughout the world.

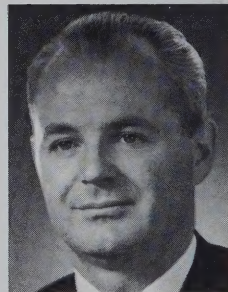
This is an impressive record of finding three mines in a period of some 10 years. Now that the Navan Mine Project has been completed, the company group is concentrating its attention on continuing exploration for other mines.



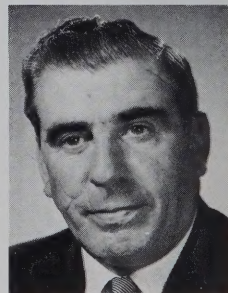
Patrick J. Hughes



Matthew Gilroy



Michael McCarthy



Joseph McParland

